Description of *Crossonema dryum* sp. (Criconematidae: Tylenchida) from Kumamoto, Japan

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Crossonema dryum n. sp. which was found around the roots of *Quercus acutissima* in Kumamoto, Japan, differs from *C. fimbriatum* in the smaller number of body spines per annule, and more elongated tail; from *C. menzeli* in the location of excretory pore and the shape of body spines. *Jap. J. Nematol.* 9:25-27 (1979)

A new species, *Crossonema dryum*, is described herein, which was found in the soil samples collected from the root-zone of *Quercus acutissima* Carruth. in Kumamoto, Japan.

Crossonema dryum n. sp.

Description

Females: Body spindle-shaped, straight or slightly curved on ventral side after killing by heat, covered by thick cuticle and consisting of 50–55 annules. Head with two annules set-off from the body. The first one saucer-shaped with a fringe of short crenations numbering *ca.* 40 on forward margin, and wider (15.9–22.2μm) than the second (12.7–17.5μm). The second annule collar-like shape slightly wavy in front. Six lips rounded on anterior surface of first annule. Body annules retrorse and bear a fringe of rectangular or bulntly pointed triangular shaped scale-like spines, rarely bifurcate in front margin, 5.3–8.0μm long at mid-body, 28–38 in numbers on each from the first body annule to near vulva, not distinctively increase or decrease from mid-body to anterior- or posterior-body. First 5–6 annules with short, definitely rounded, cuticular spines almost continuous. Spines around vulva and on tail narrowed, and tail tip with pointed terminus. Stylet long and slender, 86–121μm in length, prorhabdions 72–106 μm long, knobs 6.4–9.5μm across and with forwardly directed processes. Oesophagus with a short and broad isthmus enveloped by nerve ring. Excretory pore on 16th-19th annule, 89–180 μm from anterior end. Vulva on 10th-12th annule, 47–71μm from posterior end, with rounded edges almost reaching outline of adjacent annules. Ovary outstretched, reaching near the posterior end of oesophagus. Spermatheca oval-shaped or rounded with sperms. Anus prominent on 5th-8th annule, 23–37μm from terminus, 3–5 annules posterior to vulva.

Juveniles: Body slightly curved. Head set-off with two annules, diameter of first annule subequal or slightly smaller than the second. Body with rounded scales, arranged in 8 longitudinal rows. Front margin of each scale bears a long and very thin triangular shaped scale-like spines, which hardly observed from the front. The spines increase in size posteriorly and become more elongated. Tail narrow conoid in outline and the tip truncated.

Males: Unknown.

Measurements

Holotype: Female: L=500μm, a=10.5, a′=7.9 b=3.5, c=14.7, V=90, stylet=108μm, R=53, RV =12, Ran=8, RVan=3, Rex=19.

Paratypes: Females (n=18): L=321–544μm, a= 7.8–18.6, a′=5.9–9.5, b=2.4–3.9, c=8.7–14.7, V =82–87, stylet=86–121μm, R=50–55, RV=10–12, Ran=5–7, RVan=3–5, Rex=16–21. Juveniles (n =8): L=215–303μm, a=7.0–10.5, a′=4.9–7.2, b=2.0–3.1, c=?, stylet=71–93μm, R=53–64.

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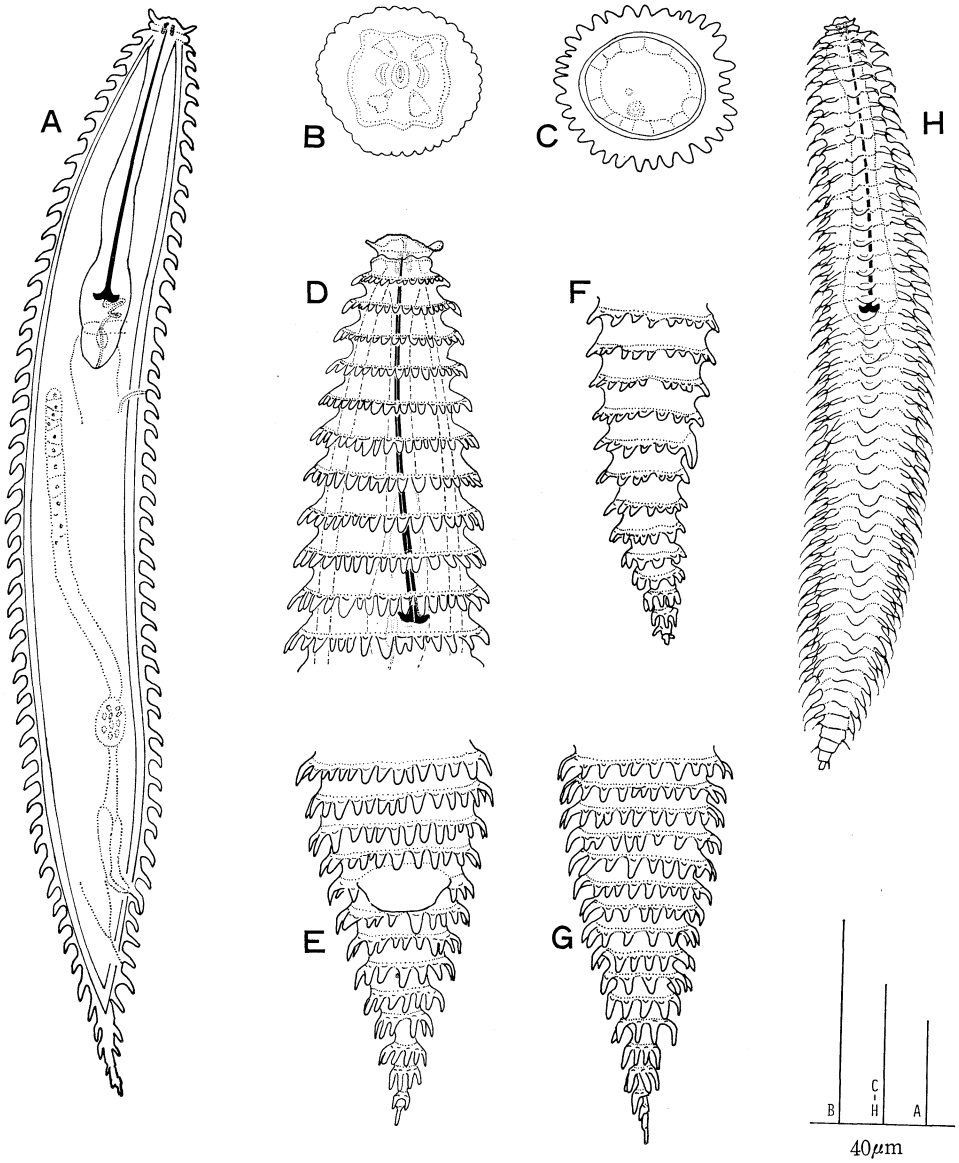

Fig. 1. *Crossonema dryum* n. sp.
A-G: Female. A: general view, B: *en face* view, C: cross section at mid-body, D: anterior end, E-G: variations of posterior ends and body spines, E: ventral view, F: lateral view, G: dorsal view. H: juvenile, general view.

Specimens were fixed in TAF and mounted in glycerin.

Type specimens

Holotype female: type No. 1, collection No. 7904. Paratypes: females and juveniles, type No. 1–14, collection No. 7904 and 7917. All deposited in the Kyushu National Agricultural Experiment Station, Kumamoto Prefecture, Japan.

Type habitat and locality

Collection No. 7904 and 7919, soil around *Quercus acutissima* Carruth. in Nishigoshi, Kumamoto Prefecture, Japan.

Diagnosis

Crossonema dryum n. sp. is close to *C. fimbriatum* (Cobb, 1936) Mehta et Raski, 1971,[1,2] but differs from the latter in the following characters: the scales of females are usually bluntly pointed triangular, smaller numbers of scales per annule (28–38 *vs.* 40–52) and more elongated tail. One female has a bluntly pointed conoid tail (Fig. 1-F) as in *C. fimbriatum*, but it has shorter triangular scales on body annules than that species; from *C. menzeli* (Stefanski, 1924) Mehta et Raski, 1971,[2] it differs in having fewer spines per annule (52–70 in *C. menzeli*), in shape and arrangements of body spines and more anterior location of the excretory pore (Rex: 16–21 *vs.* 23–24). The species name *dryum* is after the Greek of *Quercus*.

The author thanks Mr. Y. Ohshima for his valuable advice and critical reading of the manuscript.

LITERATURE CITED

1) Golden, A. M. & Friedmann, W. (1964) Proc. helminth. Soc. Wash. 31, 47-59.
2) Mehta, U. K. & Raski, D. J. (1971) Indian J. Nematol. 1, 145-198.

Accepted for publication: August 30, 1979

和文摘要

Crossonema dryum (新種) の記載

皆川　望

熊本県菊池郡西合志町の九州農業試験場構内のクヌギ根辺土壌から採取した *Crossonema* 属のトゲワセンチュウを新種として記載した．本種の雌成虫は体長 321—544 μm，体環数 50—55，口針長 86—121μm，陰門は尾端から10—12番目，肛門は同じく 5—7 番目の体環に位置する．同属の近似種 (*C. fimbriatum*, *C. menzeli*) とは一体環上の突起数がより少なく，それらの形態が異なる．また *C. fimbriatum* と較べ尾部が長く，先端がより尖り，*C. menzeli* とは排泄口の位置がより前方にある等の形態的差異が認められた．これらのことから本種を新種 *Crossonema dryum* と命名した．